



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/714,833

11/14/2003

Mallinath Hatti

15230US02

3209

23446

7590

07/03/2006

MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

LEE, MICHAEL

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,833

Applicant(s)

HATTI ET AL.

Examiner

M. Lee

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-14 are rejected under 35 U.S.C. 101 because the claimed invention lacks practical invention. For instance, claim 1 only recites three fetching steps without any article or physical transformation result, or produce any useful, concrete and tangible result. Similarly, claim 8 recites a first memory, a second memory, and a feeder but without any article or physical transformation result, or produce any useful, concrete and tangible result.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 8-10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Jun (6,040,868).

Regarding claim 1, Jun discloses an interlace-to-sequential converter (Figure 2) showing memories 10 and 20, and a write clock generator 30 and a read clock generator 40. Together, the memories and clock generators meet the fetching steps as claimed. The memories 10 and 20 each stores a respective

Art Unit: 2622

video field, such as the even and odd fields, which are the same as the top field and the bottom field as claimed. Similarly, the line memories 50-90, read clock generator 170, R/W clock generator and multiplexers 100 and 120 together meet the fetching steps as claimed.

Regarding claims 2, 3 and 5, the write clock generator 30 and read clock generator 40 meets the calculating steps as claimed because they both generate address signals to the memories 10 and 20. Since the address signals are generated based on a reference clock signal, the generators 30 and 40 involve some calculations. For instance, a divider or multiplier for dividing or multiplying the reference clock signal clearly meets the calculating steps as claimed.

Although does not specify, Jun is intended to employ the same setup as illustrated in Figures 2 and 4 for storing both the luminance and chrominance signals, which are inherently included in a NTSC television signals. Similarly, read clock generator 170 has the same function as the read clock generator 40.

Regarding claims 4, 6, and 7, Jun shows an interpolator 110 for performing interpolation for two adjacent lines, which meets the interpolating steps as claimed. The interpolation carried out by the interpolator is intended for both the luminance signal and the chrominance signal.

Regarding claim 8, Jun shows a first and second memories (10,20), and a feeder (SW4) in Figure 2. Similarly, Jun shows a first memory (50), a second memory (60-90), and a feeder (100,120) in Figure 4.

Regarding claims 9, 10 and 12, see rejections to claims 2, 3, and 5 above.

Regarding claims 11, 13 and 14, see rejections to claims 4, 6 and 7.

Art Unit: 2622

4. Claims 1-3, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Bloom (4,698,674).

Regarding claim 1, the memory 22 and memory address controller 52 in Bloom together meet the fetching steps as claimed.

Regarding claims 2, 3 and 5, Bloom shows a central processing unit 24 for generating starting address signals for the memory 22, and a start address register 20 for holding the address signals. These circuits together meet the calculating steps as claimed. Although does not specify, the memory 22 is intended to store both the luminance signal and the chrominance signal because the input video signal is inherently a color signal.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Worrell et al. (6,633,344) shows a top field memory and a bottom field memory.


Normura et al. (4,866,520) shows an interpolator for two adjacent lines.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Lee whose telephone number 571-272-7349. The examiner can normally be reached on Monday through Thursday from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz, can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



M. Lee
Primary Examiner
Art Unit 2622